

Docket No. 0225-4185

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Sholom S. Rosen

Group Art Unit: 2132

Serial No.: 09/314,738

Examiner: BARRON JR., G.

Filed: May 19, 1999

For: **ELECTRONIC TICKET VENDING SYSTEM**

APPEAL BRIEF UNDER 37 C.F.R. § 1.192

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Commissioner for Patents  
Washington, D.C. 20231

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Sir:

Pursuant to the provisions of 37 C.F.R. § 1.192, Applicant submits this Appeal Brief, in triplicate, in support of the Appeal filed on February 20, 2002, of the final rejection of pending claims 1-11 as set forth in the Office Action dated September 20, 2001. Also submitted herewith is the requisite fee under §1.17(c) in the amount of \$320, as well as a Petition for Extension of Time and associated fee to extend the time for filing this brief until September 20, 2002. The Commissioner is authorized to charge any additional fees necessitated by this Brief to deposit account no. 13-4500 (Order No. 0225-4185).

Applicant respectfully requests that this Brief be fully considered by the Board and that the Examiner's rejection of the claims be reversed for the reasons stated herein.

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**I. REAL PARTY IN INTEREST**

Citibank N.A., having a business address of 399 Park Avenue, New York, New York 10043, is the real party in interest, based on an assignment filed in parent application Serial No. 08/234,461, and recorded in the United States Patent and Trademark Office (USPTO) on April 28, 1994, at Reel 6992, Frame 0297.

**II. RELATED APPEALS AND INTERFERENCES**

Applicant is unaware of any related appeals and interferences. Upon filing the present application, however, Applicant filed a Request for Interference pursuant to 37 CFR § 1.607, requesting that an interference be declared between the present application and U.S. Patent No. 5,754,654. A copy of this Request for Interference is annexed as Exhibit A.

**III. STATUS OF CLAIMS**

Claims 1-11 are pending in this application, and are the claims as filed in the present application (Applicant neither made nor proposed amendments to the claims as filed). These claims stand rejected and are appealed. A copy of the claims is annexed hereto.

**IV. STATUS OF AMENDMENTS**

After the final action, Applicant did not submit an amendment, but presented additional rebuttal arguments in a Request for Reconsideration.

**V. SUMMARY OF THE INVENTION**

The present invention relates to an "electronic ticket vending system", in which an electronic ticket is exchanged for electronic money. The system, an embodiment of which is generally shown in Figure 1, is adapted to perform both vending (when executing the Purchase of Electronic Merchandise protocol of Figures 12A-12B) and refunding (when executing the Dispute Over Electronic Merchandise protocol of Figures 30A-30E). A customer has a customer transaction device which is an electronic processing device having three components, namely, a trusted agent, a money module and a host processor. Figure 3 shows an embodiment of the complete transaction device 122 with the host processor being identified by reference numeral 124. A merchant also has a transaction device including a money module, a trusted agent and a host processor. Electronic tickets are transferred between the trusted agents; electronic money is transferred between the money modules. As disclosed at page 35, lines 10-16, a trusted agent and money module may be fabricated as a single device. The host processor provides various functions such as a human/machine interface that allows the customer or merchant to interact with the system, and a communications device that enables the customer transaction device to communicate with the merchant transaction device. Page 14, line 3 to page 15, line 7.

The electronic ticket vending system as recited in claim 1 comprises an electronic ticket vending device that generates an electronic ticket and executes at least one of vending and refunding by exchanging the generated electronic ticket with

electronic money. A communication line is connected to the vending device. At least one host processor is connected to the communication line and executes input, output, transmission and reception for executing at least one of vending and refunding of an electronic ticket. The electronic ticket vending system also comprises an electronic ticket storage device, having an interface that electronically connects to the host processor. The electronic ticket storage device stores electronic money, an electronic ticket, and a transaction history including transactions of electronic money and electronic tickets. The transaction history is updated, by a program stored in the electronic ticket storage device, after a transfer of either electronic money or an electronic ticket. In response to an electronic ticket purchase request or an electronic ticket refund request, by at least the host processor or the electronic ticket storage device, at least the electronic ticket or the electronic money is sent from the electronic ticket vending device via said communication line.

Claim 11 is another claim directed to an electronic ticket vending system, claim 11 expressly reciting that the electronic ticket vending device and the electronic ticket storage device have programmed processors. Claim 6 is directed to an electronic ticket vending method in a system corresponding to apparatus claim 1.

#### **VI. STATEMENT OF ISSUES ON APPEAL**

The only issue on appeal is whether claims 1-11 are unpatentable under 35 U.S.C. §112, first paragraph, for lacking a written description in the specification.

**VII. GROUPING OF CLAIMS**

Claims 1-11 may be considered as one group for purposes of this appeal only.

**VIII. ARGUMENT**

The Examiner has continuously rejected claims 1-11 under 35 U.S.C. §112, first paragraph, as allegedly containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. More specifically, in a first Office Action (mailed May 10, 2001), the Examiner asserted that the written description supports neither the electronic ticket storage device of claims 1, 6, and 11, nor the sending, receiving, and recording of electronic tickets and money as recited in claims 6-10. In response, Applicant submitted a Request for Reconsideration (filed July 6, 2001), rebutting each of these grounds underlying the § 112, ¶1, rejection.

In a final Office Action mailed September 20, 2001, the Examiner maintained the § 112, ¶ 1 rejection, re-asserting that the written description does not support the electronic ticket storage device of claims 1, 6 and 11. The final Office Action also repeated the assertion that the written description does not support the sending, receiving, and recording of electronic tickets and money as recited in claims 6-10; however, the Examiner did not respond to Applicants rebuttal arguments concerning these sending, receiving, and recording recitations. Additionally, the final Office Action

(in the "Response to Arguments" section) newly asserted that there is no support for a terminal means separate from the electronic ticket storage means.

In response to the final Office Action, Applicant submitted (on January 4, 2002) a further Request for Reconsideration. Applicant further elaborated reasons why the specification provides a written description of the electronic ticket storage device of claims 1, 6 and 11. Applicant also rebutted the Examiner's assertions concerning support for a terminal means separate from the electronic ticket storage means. Further, Applicant noted that while the final Office Action reasserted lack of support for the sending, receiving, and recording of electronic tickets and money, the final Office Action did not provide any response to Applicant's rebuttal arguments that are set forth in the 7/6/01 Request for Reconsideration. Accordingly, Applicant respectfully requested that if the Examiner were maintaining this basis for the § 112, ¶1 rejection, that the Examiner respond to Applicant's rebuttal arguments.

On March 5, 2002, the Examiner mailed an Advisory Action along with a Response to Arguments, which addresses addresses (1) the electronic ticket storage device, and (2) a terminal means separate from the electronic ticket storage means , but again does not address the sending, receiving, and recording of electronic tickets and money. Therefore, based on the record, Applicant submits that the § 112, ¶ 1, rejection based on sending, receiving, and recording of electronic tickets and money as recited in claims 6-10 has been overcome during prosecution, viz., the specification provides a written description of sending, receiving, and recording of electronic tickets and money as recited in claims 6-10.

Accordingly, for purposes of this appeal, the issue focuses on whether the written description supports (1) the electronic ticket storage device, and (2) a terminal means separate from the electronic ticket storage means, as recited in Applicant's claims.

Compliance with the written description requirement is a question of fact. Vas-Cath Inc. v. Mahurkar, 935 F.2d 1555, 1563 (Fed. Cir. 1991). As recited in the Office Actions and Applicant's Requests for Reconsideration, the inquiry is whether the specification conveys, with reasonable clarity to those skilled in the art that, as of the filing date, the inventor was in possession of the invention as claimed. Id. at 1563-64.

Applicant respectfully submits that, for at least the reasons elaborated below, the specification clearly provides a written description of (1) the electronic ticket storage device, and (2) a terminal means separate from the electronic ticket storage means.

**A. The Electronic Ticket Storage Device**

In the first Office Action, the Examiner stated the following:

[D]isclosure of the instant application is directed to a transaction device comprising a trusted agent and a money module. This arrangement for separate trusted agent and money module components, is in keeping with the objectives of the instant application for a flexible, anonymous and trusted electronic system . . . . It is not established how the proposed claims, which set forth an invention that teaches away from separate components, could be supported by a disclosure that describes an invention having separate components, and the benefits and uses of the invention that is comprised of the separate components."

Basically, the Examiner alleged that there is no support for an electronic ticket storage device as claimed because Applicant's disclosure describes implementing a money module and a trusted agent as separate components.

In the 07/06/01 Request for Reconsideration (i.e., responding to the first Office Action), Applicant explained with reference to the following excerpt (hereinafter referenced as "the first excerpt") that the instant application clearly supports an electronic ticket storage device as claimed because the specification clearly and reasonably conveys to an ordinarily skilled artisan that a money module and a trusted agent may be integrated as a discrete component.

*It may be noted that instead of the trusted agent 120 and money module 6 being embodied as discrete tamper-proof components, they may be fabricated as one tamper-proof module. In this case, it would not be necessary to establish a secure session for communication between trusted agent 120 and money module 6 in the same transaction device 122. However, discrete money modules 6 and trusted agents 120 are preferable in that such a configuration allows for greater application flexibility. [Emphasis added.]*

[Page 35, lines 10-16, (US Patent No. 5,557,518 at col. 20, lines 4-12) (emphasis added).]

Applicant remarked that this passage unambiguously and expressly conveys to the ordinarily skilled artisan that in an alternative embodiment of the invention a money module and a trusted agent may be integrated as a discrete component, viz., an electronic ticket storage device. As this passage also explains, the illustrative embodiment shows money modules 6 and trusted agents 120 implemented discretely



because “such a configuration allows for greater application flexibility”. For example, the ordinarily skilled artisan will appreciate that such a discrete or modular configuration allows the electronic ticket system to be easily integrated with any electronic money scheme (e.g., as a co-processor). This flexibility associated with such a configuration thus simply represents an attribute of an illustrative embodiment of the invention—it does not limit the invention to such a configuration. And, as discussed, the specification expressly conveys that an alternative configuration provides both the money module and the trusted agent implemented as a discrete component.

In response to Applicant’s arguments presented in the 7/6/01 Request for Reconsideration, the final Office Action states, in part, the following:

Applicant’s specification describes separate communications between money modules and trusted agents. The description indicates that a fabrication of trusted agent and money module as a single tamper proof module would eliminate the requirement for secure communications between a money module and a trusted agent, but still describes the separate communications between money modules from customer to merchant, and trusted agents from merchant to customer, and separate transaction histories for each. [Emphasis added.]

Concerning this issue of the trusted agent and the money module being integrated as one tamper proof module, an Interview Summary (mailed 10/31/01) states that “Examiner Barron pointed out that integration of the hardware components does not necessarily also support the integration of the functional or logical activities of the elements. In particular, the trusted agent and the money module have separate transaction histories and update programs.”

In the Request for Reconsideration submitted January 4, 2002, (responding to the final Office Action), Applicant further elaborated why to an ordinary skilled artisan the specification clearly and reasonably conveys structurally and functionally integrating a money module and an associated trusted agent, thus clearly supporting an electronic ticket storage device as claimed. In elaborating these reasons, Applicant referred not only to the above-cited excerpt, but also to the following (Page36, lines 1-9 ('518 patent col. 20, lines 29-42); hereinafter referred to as "the second excerpt"):

*In the preferred embodiment, the money module session is established in a manner similar to the establishment of a trusted agent session. The money modules 6 would therefore hold their own certificates containing their public keys. The swapping of certificates and random numbers (for XORing) enables the secure creation of session keys (MM/MM). The Establish Session protocol used by money modules is shown in FIG. 38 and described subsequently. *The overall system security pertaining to the money modules may be integrated with that for the trusted agents 120, but is preferably separate to provide for enhanced system security and system flexibility.* [Italicized and underlined emphasis added.]*

As an initial matter, Applicant respectfully submitted that the Office Action's assertion that the specification does not convey functionally integrating the trusted agent and associated money module because the specification "still describes the separate communications between money modules from customer to merchant, and trusted agents from merchant to customer" apparently does not consider this excerpt which expressly describes, as an alternative embodiment, implementing a common communication channel for inter-transaction device communications between money modules and between trusted agents. More specifically, to those skilled in the art, it clearly and reasonably conveys integrating the security functions of a trusted agent and

its associated money module such that they may use the *same* certificate (and public key), and thus may communicate over a common communication channel with another transaction device's money module and/or trusted agent. This integrated security and common communication is clearly set forth as an alternative to a trusted agent and its associated money module having separate security, having their own certificates (and public keys), and thus communicating via separate communication channels and necessarily requiring establishing separate communication sessions.

In the Request for Reconsideration submitted January 4, 2002, Applicant further elaborated how the specification, including the first and second excerpts, clearly supports the electronic ticket storage device as claimed, Applicant's remarks presented for additional clarity under three subheadings as follows.

**1. "One Module" Clearly Conveys Functionally/Logically  
Integrating a Trusted Agent and Its Associated Money Module**

Referring to the first excerpt, *supra*, Applicant submitted that this description of the trusted agent and money module being "*fabricated as one tamper-proof module*" reasonably conveys to those skilled in the art that the trusted agent and money module are fabricated as an integrated *functional* and structural unit (e.g., an integrated hardware and/or software device, such as a program controlled processor, implementing both the trusted agent and money module *functions*).

First, Applicant noted that the specification describes the money module and trusted agent each as *functional* modules, not limited to a specific physical embodiment. For instance, they are each described with reference to their functional components. See, e.g., Figs. 4A-4D and page 15, line 11 et seq. ('518 patent at col. 8,

line 55 et seq.); Figure 4 and col. 11, line 37 et seq. of US Patent No. 5,453,601.

Indeed, the '601 patent specification states the following:

[A]ll . . . money modules may be implemented programmatically or by direct electrical connection through customized integrated circuits, or a combination of both, using any of the methods known in the industry for providing the *functions* described . . . [and] [t]hose skilled in the art will appreciate that . . . commercial semiconductor integrated circuit technology would suggest numerous alternatives for actual implementation of the inventive *functions* of the money module that would still be within the scope of the invention. [Col. 10, lines 13-25 (emphasis added).]

In describing transaction money modules, the '601 patent further states (col. 11, lines 33-36) that “[b]ecause the Transaction money module 4 can take on a variety of physical representations, it will be described by the functions performed”, and the '601 patent similarly describes other money modules according to their functions. Moreover, the instant application sets forth the protocols implemented by the trusted agent and money module with reference to operational flow charts (e.g., Figures 12-20), again highlighting that the trusted agent and money module are characterized by their functions, and not limited to a specific structural embodiment.

Second, the specification further expressly conveys to those skilled in art that a “module” (e.g., a trusted agent functional unit or money module functional unit) is physically embodied as hardware and/or software (e.g., one or more program controlled processors) designed to carry out the *functions* of that module (e.g., of the trusted agent or money module). For example, the '601 patent explains that “[i]t is contemplated that . . . money modules . . . will be a combination of tamper-proof

hardware and application software". '601 patent at col. 8, lines 10-14. Additionally, the instant application states that "[a] trusted agent is a combination of hardware and software components [and] [i]t is tamperproof", thus clearly conveying that a trusted agent is a "module" physically embodied in ways (e.g., as one or more program controlled processors) similar to money module implementations. Page 6, lines 17-18 ('518 patent at col. 8, lines 9-11).

Accordingly, the explicit description of the trusted agent (i.e., functional module) and its associated money module being fabricated as *one* tamper-proof "*module*" clearly and reasonably conveys that these *functional components* (i.e., modules) may be provided as an integrated functional component (i.e., a module). For example, their respective functions may be logically implemented by a unitary hardware and/or software device (e.g., a processor programmed to execute trusted agent and money module functions). Simply, the disclosure explicitly describes implementing as one functional component (i.e., one module) that which a preferred embodiment describes as being implemented with two functional components (i.e., two distinct modules, namely, trusted agent and money module) that are physically separated.

**2. Modifying the Flowcharts of the Disclosed Embodiments in Accordance With the Description Would Result in a Operational Flow Clearly Suited for Implementation as an Device that Physically and Logically/Functionally Integrates a Trusted Agent and Its Associated Money Module**

Applicant also respectfully submitted that the description, including the first excerpt and second excerpt, *supra*, describes modifying the purchase of electronic money protocol (see, col. 17, line 43-col. 23, line 61) in a manner that would result in a

process flow that those skilled in the art would clearly and reasonably understand as being a logical/functional integration of trusted agent and money module (and as capable of being implemented, for example, by a common processor executing a program that implements all money module and trusted agent functions).

As Applicant explained in the 7/6/01 Request for Reconsideration, having trusted agent and associated money module functional components embodied in physically separate tamper-proof devices is a preferred—and technically more challenging—way of implementing their functionality that “allows for greater application flexibility” (e.g., it allows trusted agents to be modularly added into any electronic monetary system). Those skilled in the art would understand that the protocols (e.g., purchase of electronic merchandise) described in detail with reference to the flowcharts represent a technically more difficult implementation inasmuch as they describe how to ensure secure communications and transactions (e.g., against the transacting parties and third parties) when a trusted agent functional module and its associated logical money module are implemented in physically separate tamper-proof devices. In the described embodiment, such secure communications are ensured by establishing and using four encryption channels, schematically depicted in the functional block diagram of Figure 13: two (438 and 440) between the respective TAs and MMs, one (436) between the TAs, and one (442) between the MMs.

The ordinarily skilled artisan would further understand that the express description of providing an alternative—and technically much simpler—embodiment (i.e., trusted agent and associated money module functions combined in one tamper-proof

component) by (1) *eliminating* (as per the first excerpt) secure sessions for communications between a trusted agent and its associated money module (i.e., eliminating secure channels 438 and 440 in Fig. 13), and (2) *eliminating* (as per the second excerpt) separate secure sessions for inter-trusted agent and inter-money module communications between transaction devices [collapsing 436 and 442 (e.g., eliminating 442) into one common communication channel handling both inter-trusted agent and inter-money module logical messages], may be provided *by simply excising* such security-related steps from the explicitly disclosed process flow that enables physically separate trusted agent and money module, resulting in a process flow that is logically a serial flow (i.e., a serial sequence of trusted agent and money module functional steps). That is, the resulting operational flow is a protocol represented by a sequence of cooperative/interdependent steps/operations effected by trusted agent and associated money module logical entities (e.g., functions, objects, and/or subroutines) without security layers delimiting them, which flow the ordinarily skilled artisan would understand may be implemented in hardware/software on one or more programmed processors to provide a logically/physically integrated trusted agent and money module. Simply, the sequence is *one sequential logical* flow of integrated trusted agent and money module steps, viz., the trusted agent and money module are logically integrated.

In more detail, referring to Figures 16A-16E and the corresponding description in the specification, which describes an anonymous payment protocol and illustrative variations thereof, those skilled in the art would clearly understand that an alternative embodiment in which the secure session between a trusted agent and its associated

money module is eliminated (as expressly described by the first excerpt, *supra*, and corresponding to eliminating channels 438 and 440 in Fig. 13) could be provided by *eliminating* (i) steps 520-536 (which involve establishing the secure session), (ii) steps 538-544 involving the sending/receiving of R(1) and R(2) (the random numbers making up the session key); (iii) steps that send messages by encrypting with TA/MM session keys (steps 560, 564, 574, 578, 606, 616, 584, and 586); and steps 548-556 which relate to conveying information for forming the TA/MM session key in the money modules.

In further view of the second excerpt, which clearly and reasonably conveys integrating the overall system security (e.g., involving the management of certificates and session keys) of the trusted agents and money modules, and thus using a common communication channel for inter-transaction device messages logically originating from either a trusted agent or its associated money module, those skilled in the art would further clearly understand that such an embodiment may be provided by eliminating step 546 (eliminating channel 442 in Fig. 13) because this step involves establishing a MM-to-MM session (but an inter-transaction device session has already been established).

Additionally, because the trusted agent/associated money module sessions are eliminated as well as the separate inter-trusted agent and inter-money module sessions (i.e., these communications use a common channel), the ordinarily skilled artisan would clearly understand that the messages designated "E-routed" messages (steps 582, 602, 622, 626, and 632) become regular messages sent over the common secure



communication channel used for inter-transaction device communications (used for logically/functionally TA-to-TA messages as well as logically/functionally MM-to-MM messages). [Note, E-routed messages are described as messages using more than one of the session keys MM/MM, TA/MM and TA/TA that are employed in the disclosed embodiment that is suited for physically separate trusted agents and money modules. In that embodiment, inter-money module messages are sent via the trusted agent/associated money module session, and further encrypted by the MM/MM session key and the TA/TA session key. See, e.g., col. 21, lines 43-46.] Further, in view of the foregoing, those skilled in the art would understand that the message protocols represented by Figs. 17-20 would be eliminated.

Applicant respectfully submits that an ordinarily skilled artisan considering this operational flow (and concomitantly, the modified functional block diagram of Fig. 13<sup>1</sup>) that clearly results (note, steps are only eliminated, no additional steps are required) by modifying the disclosed operational flow as described in the specification (and particularly, as per the first and second excerpts) would clearly understand that this resulting operational flow is a logical integration of trusted agent and associated money module functions at least inasmuch as it is a single flow, with message passing between logical components (e.g., trusted agent functions or objects and money module functions or objects), has a common security system for inter-transaction device

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<sup>1</sup> Applicant notes that the functional block diagram of Figure 13, modified as per the express description set forth in the first and second excerpts, results in a single, common secure communication channel for messages between either TAs or MMs of different transaction devices (with a common certificate for both the TA and MM in a given transaction device) and no secure channel (i.e., 438 and 440) between a trusted agent and its associated money module.

messages (e.g., logical money module-to-money module messages and/or logical trusted agent-to-trusted agent messages), and has no security provisions for messages between a trusted agent and its associated money module.

### **3. Additional Remarks Concerning Functional Integration**

In the Request for Reconsideration submitted January 4, 2002, Applicant additionally noted that even if a program (operating on one or more processors) physically or logically stores electronic money transaction history information in a different format and/or in different steps from electronic ticket information, the program nevertheless updates a transaction history "including transactions of electronic money and electronic tickets", and thus it cannot be said that "the trusted agent and the money module have separate transaction histories and update programs". (Indeed, the Hiroya patent (USP 5,754,654) describes using separate steps for storing the electronic ticket information and the electronic money.)

Applicant further noted that the trusted agent and money module may be considered as being functionally integrated even in the operational flows disclosed for physically separate trusted agent and money module (e.g., Figs. 16A-16E). Particularly, they may be considered functionally integrated at least to the extent that these respective functional components (and their functional sub-components; see, e.g., Fig. 4A for the trusted agent's sub-components) are cooperative and interdependent in effecting a transaction (e.g., anonymous payment protocol); however, they may be considered separate functional modules to the extent that they

communicate via security channels implemented because they are in physically separate tamper-proof devices. Thus, fabricating them as one tamper-proof module and eliminating security channels—as the specification expressly describes—may be considered as merely *further* functionally integrating (i.e., to the extent that delimiting security layers are removed) the already functionally integrated trusted agent and money module.

In the Examiner's Response to Arguments that accompanied the Advisory Action, the Examiner states the following:

The Request for Reconsideration points to a second excerpt at page 36, lines 1-9, to show that the description expressly describes, "as an alternative embodiment, implementing a common communication channel for inter-transaction device communications between money modules and trusted agents." However, this passage, which describes as a less preferable alternative embodiment, system security pertaining to the money modules may be integrated with that for the trusted agents 120, is solely directed to the system security between the money module and the trusted agent. Applicant's argument that extending this "integration" to all other functionality between the money module and the trusted agent is not apparent. Nowhere in the specification is there express description of an embodiment where the separate transaction functions of the money module and the trusted agents are to be integrated.

As explained above, in Applicant's Request for Reconsideration after final, Applicant addressed this inter-transaction device communications issue as an initial matter to rebut the Examiner's allegation that the specification does not support functionally integrating the trusted agent and associated money module because it "still describes the separate communications between money modules from customer to

merchant, and trusted agents from merchant to customer". It appears that the Examiner's Response to Arguments statement, recited above, now acknowledges that the specification supports integrating the trusted agent and associated money module such that they may communicate over a common communication channel with another transaction device's money module and/or trusted agent. Accordingly, the reasoning underlying the Examiner's allegation is further undermined and weakened.

While acknowledging Applicant's position, the Examiner's Response to Arguments statement cited above nevertheless alleges that the claimed electronic ticket storage device is not supported because the specification does not provide an "express description of an embodiment where the separate transaction functions of the money module and the trusted agents are to be integrated." Presumably, these "separate transaction functions" that allegedly are not expressly described as integrated include functions of the electronic ticket storage device as claimed, though the Examiner does not explicitly identify them. Regarding functional integration, the Examiner similarly states the following:

Applicant's argument that the instant disclosure does provide express support for "the order of exchanging electronic merchandise and money may be reversed" is noted. However, the examiner's argument was that the exchange of electronic merchandise and electronic money in the instant disclosure was a separate function of the trusted agents and the money modules, respectively[,] [w]hile the claims specify an embodiment that has one electronic ticket device storage device that stores the electronic money, electronic ticket and a transaction history, not separate devices for each. [Emphasis added.]

Applicant submits that, as explained in detail above with reference to Applicant's Requests for Reconsideration, the specification expressly describes the trusted agent and money modules as functional modules that may be implemented in hardware and/or software (e.g., objects, subroutines, programs, a programmed processor, etc.), and thus the explicit description of the trusted agent and its associated money module being fabricated as *one* tamper-proof "module" (see the first excerpt, *supra*) clearly and reasonably conveys to those skilled in the art that these functional modules may be provided as an integrated functional component (i.e., a module). Applicant respectfully submits that, by way of example, a processor executing software that implements all functions of both the trusted agent and the associated money module is an illustrative implementation that the description reasonably conveys to those skilled in the art, and clearly supports such "an electronic ticket storage device" as claimed.

Even assuming *arguendo* that, (as asserted by the Examiner), the specification does not provide an "express description of an embodiment where the separate transaction functions of the money module and the trusted agents are to be integrated" (emphasis added), Applicant submits that, in view of the foregoing, the specification nevertheless reasonably conveys to those skilled in the art that "separate transaction functions" may be integrated since it explicitly describes integrating the overall functional trusted agent and money modules and explicitly describes integrating security functions. Further, information which is well known in the art need not be described in detail in the specification. See, e.g., Hybritech, Inc. v. Monoclonal Antibodies, Inc., 802 F.2d 1367, 1379-80, 231 USPQ 81, 90 (Fed. Cir. 1986).

Moreover, if a skilled artisan would have understood that Applicant was in possession of the claimed invention at the time of filing, even if every nuance of the claims is not explicitly described in the specification, then the adequate description requirement is met. See, e.g., Vas-Cath, 935 F.2d at 1563.

The Examiner's Response to Arguments that accompanied the Advisory Action, also states the following:

Nor is the argument that the first and second excerpts describe modifying the purchase of electronic money protocol in a manner that would result in a process flow that those skilled in the art would clearly and reasonably understand as being a logical/functional integration of trusted agent and money module, persuasive. Applicant's assertion that modifying the described invention would result in a process flow to support the claims at issue is not clearly shown by any reference to what one skilled in the art would have knowledge of at the time of the invention. There is no support for the allegation that the modification to the security considerations would result in any modification to the described electronic money/ticket vending and refunding protocol described in the instant disclosure.

Further, that one skilled in the art would have been appraised [sic] that the description supports an alternative embodiment, not expressly or inherently described, but obvious with respect to the preferred embodiment, without any further teaching or suggestion from a separate source or based on the knowledge of one skilled in the art, in order to establish possession of this alternative embodiment is not convincing. Applicant's mere allegation that this alternative embodiment is obvious and within the understanding of one skilled in the art cannot be persuasive absent a showing that the differences between the preferred embodiment and the so-called alternative embodiment is taught or suggested in the prior art of one skilled in the art.

Applicant notes that Applicant's position was (and is) not that it would have been "obvious" to modify the disclosed embodiment to provide an embodiment that supports

the claimed invention inasmuch as such an "obviousness" analysis is inapposite with respect to the § 112, ¶ 1 issue. Instead, Applicant presented these detailed remarks as an additional grounds for showing that the specification, in view of the first and second excerpts, clearly and reasonably conveys to a skilled artisan that the trusted agent and money modules may be functionally integrated. While the remarks are detailed, they plainly point out that in view of the disclosed operational flow and the first and second excerpts, the specification reasonably conveys to any skilled artisan that the trusted agent and money module may be logically and functionally integrated because a single, sequential logical flow is conveyed in view of these express teachings taken together.

Additionally, the Examiner's Response to Arguments that accompanied the Advisory Action states the following:

Applicant's arguments that an embodiment that stores electronic money transaction history information in a different format and/or different steps from electronic ticket information nevertheless updates a transaction history "including transactions of electronic money and electronic tickets", is not persuasive as the instant claims specify as electronic ticket storage device that stores electronic money, electronic ticket and a transaction history including transactions of electronic money and electronic tickets. This point is substantial as the prosecution history of Hiroya indicates that this was one of the reasons for patentability.

Applicant first notes that the prosecution history of Hiroya, as well as this "this point" being "one" of the reasons for patentability of Hiroya, is irrelevant and inapposite with respect to the instant application. Entertaining the Examiner's remark, however, Applicant notes that the USPTO as granted patents to Applicant that are related to the instant application and which include claims directed to integrating the money module

and trusted agent . For example, claim 16 of US Patent No. 5,557,518 (to which the instant application is related via a series of divisional and continuation applications) recites "The system of claim 1, wherein a trusted agent and a money module comprise application software both executed on the same tamper-proof processor." (See US Patent No. 5,557,518 claim 1). The USPTO's examination and confirmation of such a claim is consonant with Applicant's position that the specification supports an electronic ticket storage device as claimed. Applicant further notes, however, that (as described above) to any skilled artisan the specification clearly and reasonably conveys integrating the functions of the trusted agent and the money module, and the skilled artisan would recognize, for example, that any function(s) that may be redundant or duplicative may be further integrated or consolidated when the trusted agent and money module are functionally combined. See, e.g., Vas-Cath, 935 F.2d at 1563, cited *supra*.

For at least the foregoing reasons, Applicant respectfully submits that the written description clearly supports "an electronic ticket storage device" as claimed, and, moreover, reasonably conveys to those skilled in the art that the disclosed trusted agent and associated money module logical components may be functionally integrated into one tamper-proof module to implement "an electronic ticket storage device [that] . . . stores electronic money, an electronic ticket, and a transaction history including transactions of electronic money and electronic tickets, and where said transaction history is updated, by a program stored in said electronic ticket storage device, after a transfer of either electronic money or an electronic ticket".



**B. Terminal Means Separate From Electronic Ticket Storage Means**

As noted above, the "Response to Arguments" section of the final Office Action set forth a new reason for asserting the § 112, ¶ 1 rejection:

[T]he description of the invention indicates that transaction device, Figure 3, #122, includes three components, host processor, 124, trusted agent 120 and money module 6. While [sic] the invention of the claims requires a terminal means separate from the electronic ticket storage means.

The Interview Summary notes that this new reason was also part of the substance of the interview:

With respect to the host processor, the examiner pointed out that the claims include a terminal device or means which supports vending that is separate from the electronic ticket storage device, while the Rosen application discloses the host processor as integrated with the trusted agent and the money module.

In the Request for Reconsideration after final, Applicant respectfully submitted that the specification reasonably conveys to those skilled in the art that the host processor and electronic ticket storage device are coupled in a manner such that, for example, they may be physically separable at least inasmuch as the specification shows them coupled or interfaced via a bus (i.e., bus 126), which those skilled in the art clearly understand may include any of myriad types of bus interfaces (e.g., PCI, ISA, PCMCIA, Smart-card) that are well-known to allow the components to be

detachable/unpluggable/removable. Thus, the specification does not denote that the transaction device's components must be physically integrated or structurally confined/fixed in some type of physically inseparable local bus architecture.

Further, Applicant pointed out that the Rosen application plainly teaches that a ticket storage device may be interfaced to any one of a number of host devices. For example, as explained in Applicant's interference request submission, the disclosure of U.S. Patent No. 5,453,601 (the '601 patent; which is incorporated by reference into the instant application) describes a preferred money module and host processing device (i.e., the external system or device) to which it is interfaced (page 1, lines 28-30; page 37, lines 6-9), and provides examples of such host processing devices in Figure 3 of the '601 patent as including point of sale (POS) terminals, electronic wallets, personal computers/workstations, mainframes and telephones. See also the related text at Col. 9, line 50 to col. 11, line 36. Accordingly, since the specification describes the ticket storage device as capable of being interfaced to a variety of host devices (e.g., depending on the application), it is clearly intended to be portable (i.e., capable of being ported via a bus interface).

Moreover, Applicant also referred to Applicant's interference request submission (see Exhibit A, annexed hereto), which explains that the specification expressly describes the host as providing the communication functions (see, e.g., Page 14, lines 8-13) that allow the ticket storage device to engage in a transaction with another device; therefore, the host is *a fortiori* a terminal, clearly understood by those skilled in the art as being separable from the ticket storage, but interfaced thereto to provide the

terminal functions required by the ticket storage device for transacting. [Applicant notes that Hiroya similarly shows that the ticket storage device must be interfaced with a host (terminal means) to effect a transaction.]

Applicant further noted that there is no disclosure expressly requiring the ticket storage device to be permanently and immutably fixed to the host. Therefore, it cannot be said that the Rosen application somehow conveys that the terminal means cannot be separate from a ticket storage device.

Indeed, to the contrary, for at least the reasons explained above, the specification clearly supports a terminal means being separate from an electronic ticket storage means.

In the Examiner's Response to Arguments that accompanied the Advisory Action, the Examiner states the following:

Applicant's argument regarding the host processor being coupled to the money module and the trusted agent through a bus 126, see Figure 3, which those skilled in the art clearly understand may include any of myriad types of bus interfaces that are well-known to allow that components to be detachable/unpluggable/removable, is not persuasive. The same Figure 3, shows a box 122 that clearly conveys that the "host processor" is not external to the money module or the trusted agent, but rather is included as a complete device.

Applicant respectfully submits that Figure 3 is merely a schematic diagram illustrating an embodiment of a transaction device. To those skilled in the art, the box—which is merely schematic--does not denote that the ticket storage device is necessarily, permanently and immutably fixed to the host processor. Applicant submits that the specification must be considered as a whole for all that it describes, and that

the Examiner's remark which focuses solely on a box in one figure summarily and improperly disregards the entirety of the specification and Applicant's detailed reference to the disclosure that clearly and reasonably supports a terminal means being separate from an electronic ticket storage means.

**IX. Conclusion**

For the foregoing reasons, Applicant submits that the specification reasonably conveys to an ordinarily skilled artisan that at the time of filing Applicant was in possession of the claimed invention. Applicant therefore respectfully requests that the Examiner's rejection be reversed.

Respectfully submitted,

MORGAN & FINNEGAN, L.L.P.

Dated: September 20, 2002

By:

  
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**APPENDIX OF CLAIMS INVOLVED IN THIS APPEAL**

1. An electronic ticket vending system comprising:

an electronic ticket vending device that generates an electronic ticket and executes at least one of vending and refunding by exchanging the generated electronic ticket with electronic money;

a communication line connected to said vending device;

at least one host processor connected to said communication line that executes input, output, transmission and reception for executing at least one of vending and refunding of an electronic ticket; and

an electronic ticket storage device, having an interface that electronically connects to said host processor, where said electronic ticket storage device stores electronic money, an electronic ticket, and a transaction history including transactions of electronic money and electronic tickets, and where said transaction history is updated, by a program stored in said electronic ticket storage device, after a transfer of either electronic money or an electronic ticket;

where in response to an electronic ticket purchase request or an electronic ticket refund request, by at least said host processor or said electronic ticket storage device, at least said electronic ticket or said electronic money is sent from said electronic ticket vending device via said communication line.

2. The electronic ticket vending system of claim 1, wherein said electronic ticket vending device further comprises: a processor that executes a software protocol that produces an electronic ticket from at least data indicating a ticket publication source and data indicating the price of a ticket; an interface for transmission and reception of an electronic ticket, an interface for transmission and reception of electronic money; and wherein said electronic ticket vending device stores an encryption key, electronic money, and a transaction history of transmitting or receiving electronic money or an electronic ticket.

3. The electronic ticket vending system of claim 2, wherein said electronic ticket vending device stores a secret key of an asymmetric encryption algorithm which varies with each merchant and a public key forming a counterpart to said secret key.
4. The electronic ticket vending system of claim 1, wherein said electronic ticket storage device further comprises a processor for controlling transmission and reception of an electronic ticket and electronic money, and storage of said transaction history.
5. The electronic ticket vending system of claim 4, wherein said electronic ticket storage device stores an electronic signature which is produced by digitally signing ticket data.
6. An electronic ticket vending method in a system comprising an electronic ticket vending device, at least one host processor, and a communication line connecting said electronic ticket vending system and said at least one host processor, said method comprising:
  - a step of sending a request to purchase an electronic ticket to said electronic ticket vending device from at least one of said host processors connected to an electronic ticket storage device having an interface that electronically connects to said host processor, where said electronic ticket storage device stores electronic money, an electronic ticket, and a transaction history including transactions of electronic money and electronic tickets, and where said transaction history is updated by a program stored in said electronic ticket storage device after a transfer of either electronic money or an electronic ticket;
  - a step of sending a request for ticket payment to said electronic ticket storage device, when said electronic ticket can be vended from said electronic ticket vending device;

a step of sending electronic money, in an amount consistent with said request, to said electronic ticket vending device from said electronic ticket storage device via said communication line;

a step of sending said electronic ticket to said electronic ticket storage device from said electronic ticket vending device after said electronic money is received; and

a step of receiving said sent electronic ticket via said host processor and storing it in said electronic ticket storage device connected to said host processor.

7. The electronic ticket vending method of claim 6, further comprising:

a step of receiving said electronic money from said electronic ticket storage device by said electronic ticket vending device;

a step of recording that said electronic money was received from said electronic ticket storage device; and

a step of sending said electronic ticket to said electronic ticket storage device; and

a step of recording that said electronic ticket was sent to said electronic ticket storage device.

8. The electronic ticket vending method of claim 7, further comprising:

a step of receiving said electronic ticket to be refunded from said electronic ticket storage device by said electronic ticket vending device;

a step of recording that said electronic ticket to be refunded was received from said electronic ticket storage device;

a step of sending said electronic money to said electronic ticket storage device; and

a step of recording that said electronic money was sent to said electronic ticket storage device.

9. The electronic ticket vending method of claim 8, further comprising:

a step of sending said electronic money to said electronic ticket vending device from said electronic ticket storage device;

a step of recording that said electronic money was sent to said electronic ticket vending device;

a step of receiving said electronic ticket by said electronic ticket storage device; and

a step of recording that said electronic ticket storage device received said electronic ticket.

10. The electronic ticket vending method of claim 9, further comprising:

a step of sending said electronic ticket to be refunded to said electronic ticket vending device from said electronic ticket storage device;

a step of recording that said electronic ticket to be refunded was sent;

a step of receiving said electronic money from said electronic ticket vending device by said electronic ticket storage device; and

a step of recording that said electronic ticket storage device received said electronic money.

11. An electronic ticket vending system comprising:

an electronic ticket vending device having a processor programmed to generate an electronic ticket and execute at least one of vending and refunding by exchanging the generated electronic ticket with electronic money;

a communication line connected to said vending device;

at least one host processor connected to said communication line programmed to execute input, output, transmission and reception for executing at least one of vending and refunding of an electronic ticket; and



an electronic ticket storage device having an interface that electronically connects to said host processor, where said electronic ticket storage device has a processor programmed to store electronic money, an electronic ticket, and a transaction history including transactions of electronic money and electronic tickets, and where said processor is programmed to update said transaction history after a transfer of either electronic money or an electronic ticket;

where in response to receiving an electronic ticket purchase request or an electronic ticket refund request, said electronic ticket vending device is programmed to send at least said electronic ticket or said electronic money to said electronic ticket storage device via said communication line.



PATENT  
Docket No. 0225-4185

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant(s) : Sholom S. Rosen Group Art Unit:  
Serial No. : To be assigned Examiner:  
Filed : May 19, 1999  
For : ELECTRONIC TICKET VENDING SYSTEM

**REQUEST BY APPLICANT  
FOR INTERFERENCE WITH PATENT UNDER 37 C.F.R. §1.607**

**RECEIVED**

**SEP 20 2002**

**Technology Center 2100**

Honorable Commissioner of Patents and Trademarks  
Washington, DC 20231

Sir:

Pursuant to 37 C.F.R. §1.607, applicant requests that an interference be declared between the above-identified patent application (the "Rosen application") and U.S. Patent No. 5,754,654, issued May 19, 1998 to Hiroya et al. (the "Hiroya Patent"). A copy of the Hiroya Patent is annexed hereto as Exhibit A.

A. The Proposed Count

Applicant proposes the following as the Count for an interference between the Rosen application and the Hiroya patent:

Proposed Count

An electronic ticket vending system comprising:

, an electronic ticket vending device that generates an electronic ticket and executes at least one of vending and refunding by exchanging the generated electronic ticket with electronic money;

a communication line connected to said vending device;

at least one host processor connected to said communication line that executes input, output, transmission and reception for executing at least one of vending and refunding of an electronic ticket; and

an electronic ticket storage device having an interface that electronically connects to said host processor, where said electronic ticket storage device stores electronic money, an electronic ticket, and a transaction history including transactions of electronic money and electronic tickets, and where said transaction history is updated, by a program stored in said electronic ticket storage device, after a transfer of either electronic money or an electronic ticket;

where in response to an electronic ticket purchase request or an electronic ticket refund request, by at least said host processor or said electronic ticket storage device, at least said electronic ticket or said electronic money is sent from said electronic ticket vending device via said communication line.

OR

An electronic ticket vending system comprising:

electronic ticket vending means for generating an electronic ticket and executing at least one of vending and refunding by exchanging the generated electronic ticket with electronic money;

a communication line connected to said vending means;

at least one terminal means connected to said communication line for executing input, output, transmission and reception for executing at least one of vending and refunding of an electronic ticket; and

electronic ticket storage means having means for electronically connecting said terminal means for storing electronic money, means for storing an electronic ticket, and means for storing a transaction history including transactions of electronic money and electronic tickets, updated by a program stored in said electronic ticket storage means, at a transaction of at least one of electronic money and an electronic ticket;

wherein by a request of one of purchasing and refunding of an electronic ticket by at least one of said terminal means and said electronic ticket storage means, at least one of said electronic ticket and said electronic money is sent from said electronic ticket vending means via said communication line.

**B. Claim 1 of the Hiroya Patent and Claim 1 of the Rosen Application  
are Directed to the Same Patentable Invention**

The chart below compares claim 1 of the Rosen application with claim 1 of the Hiroya Patent. As demonstrated by the following discussion, the Rosen application and the Hiroya Patent claim the same patentable invention even though different terminology is used.

<b>Comparison of Rosen Application Claim 1 with Hiroya Patent Claim 1</b>		
	<b>Rosen Application Claim 1</b>	<b>Hiroya Patent Claim 1</b>
1.	An electronic ticket vending system comprising:	An electronic ticket vending system comprising:
2.	an electronic ticket vending device that generates an electronic ticket and executes at least one of vending and refunding by exchanging the generated electronic ticket with electronic money;	electronic ticket vending means for generating an electronic ticket and executing at least one of vending and refunding by exchanging the generated electronic ticket with electronic money;
3.	a communication line connected to said vending device;	a communication line connected to said vending means;
4.	at least one host processor connected to said communication line that executes input, output, transmission and reception for executing at least one of vending and refunding of an electronic ticket; and	at least one terminal means connected to said communication line for executing input, output, transmission and reception for executing at least one of vending and refunding of an electronic ticket; and
5.	an electronic ticket storage device having an interface that electronically connects to said host processor, where said electronic ticket storage device stores electronic money, an electronic ticket, and a transaction history including transactions of electronic money and electronic tickets, and where said transaction history is updated, by a program stored in said electronic ticket storage device, after a transfer of either electronic money or an electronic ticket;	electronic ticket storage means having means for electronically connecting said terminal means for storing electronic money, means for storing an electronic ticket, and means for storing a transaction history including transactions of electronic money and electronic tickets, updated by a program stored in said electronic ticket storage means, at a transaction of at least one of electronic money and an electronic ticket;
6.	where in response to an electronic ticket purchase request or an electronic ticket refund request, by at least said host processor or said electronic ticket storage device, at least said electronic ticket or said electronic money is sent from said electronic ticket vending device via said communication line.	wherein by a request of one of purchasing and refunding of an electronic ticket by at least one of said terminal means and said electronic ticket storage means, at least one of said electronic ticket and said electronic money is sent from said electronic ticket vending means via said communication line.

## 1. Electronic Ticket Vending System

The Rosen application is directed to an "electronic ticket vending system", in which an electronic ticket is exchanged for electronic money. The system, which is generally shown in Figure 1, is adapted to perform both vending (when executing the Purchase of Electronic Merchandise protocol of Figures 12A-12B) and refunding (when executing the Dispute Over Electronic Merchandise protocol of Figures 30A-30E). A customer has a customer transaction device which is an electronic processing device having three components, namely, a trusted agent, a money module and a host processor. Figure 3 shows the complete transaction device 122 with the host processor being identified by reference numeral 124. A merchant also has a transaction device including a money module, a trusted agent and a host processor. Electronic tickets are transferred between the trusted agents; electronic money is transferred between the money modules. As disclosed at page 35, lines 10-16, a trusted agent and money module may be fabricated as a single device. The host processor provides various functions such as a human/machine interface that allows the customer or merchant to interact with the system, and a communications device that enables the customer transaction device to communicate with the merchant transaction device. Page 14, line 3 to page 15, line 7.

The Hiroya Patent is also directed to an "electronic ticket vending system". Figure 1 of the Hiroya patent shows an electronic ticket vending & refunding device 1 which exchanges an electronic ticket and electronic money with a terminal device 3 and an electronic ticket storage device 2.

As may be seen by a comparison of the above disclosures, the "electronic ticket vending system" recitations of the Rosen application and the Hiroya Patent are directed to the same concept.

## 2. Electronic Ticket Vending Device / Electronic Ticket Vending Means

Claim 1 of the Rosen application recites an "electronic ticket vending device". As shown in Figure 5, the electronic ticket vending device comprises a merchant transaction device indicated by reference numeral 198. Also, merchant server 194 provides a merchandise catalogue and merchandise server 194 provides an electronic warehouse of, for example, ticket data. Page 17, lines 25-29. As mentioned above, the merchant transaction device comprises a

host processor, a trusted agent and a money module. The host processor may include, for example, a display screen and a keyboard. Page 14, lines 25-29. The host processor also provides a communication device for wired or wireless communication with the outside world. Page 14, lines 8-13. The money module stores the electronic money in a memory, while the trusted agent creates and also stores electronic tickets. Page 6, line 13 to page 7, line 19. Page 17, lines 5-6. Both the money module and the trusted agent record and maintain a transaction log. Page 16, lines 18-19. Page 40, lines 8-18. Both the money module and trusted agent generate and store cryptographic keys. Page 4, lines 8-18.

The Hiroya Patent claims an "electronic ticket vending means". Figure 2 of the patent shows the components of an electronic ticket vending and refunding device. In particular, the figure shows a CPU 21 and a storage device 11 having a program storage area and a working area. Of course, these elements merely define a processing device. The storage device is also shown as storing electronic money and an encryption key. Figure 2 further shows an input device 19, a display device 18 and a communication device 20. The electronic ticket vending and refunding device of Figure 2 is also shown as connected to a ticket information file 16 and a transaction history file 17.

As may be seen by a comparison of the above disclosures, the "electronic ticket vending device/electronic ticket vending means" recitations of the Rosen application and the Hiroya Patent are directed to the same concept.

### 3. A Communication Line

Claim 1 of the Rosen application recites a "communication line". Figure 5 of the Rosen application discloses a communication line between a merchant transaction device 198 and a customer transaction device 188. The communication line includes the merchant network 192 and the gateway network 190. The communications may be wired or wireless, broad or narrowband. Page 14, lines 8-13.

Claim 1 of the Hiroya Patent also recites a "communication line". Figure 1 of the Hiroya Patent shows a telephone line 4 connecting the electronic ticket vending and refunding device to the terminal device.

As may be seen by a comparison of the above disclosures, the "communication line" recitations of the Rosen application and the Hiroya Patent are directed to the same concept.

4. Host Processor / Terminal Means

Claim 1 of the Rosen application uses the phrase "host processor connected to said communication line that executes input, output, transmission and reception". The host processor is identified by reference numeral 124 in Figure 3. As stated in the application: "The host processor provides the following functions: Communications 128, Transaction Applications 130, Human/Machine Interface 132, Date/Time 136, and a Message Manager 134." Page 14, lines 3-6. As described in the application at page 14, lines 25-30, the Human/Machine Interface 132 includes, for example, a keyboard, a mouse and a touch screen, and provides for the display of icons, menus, etc. The Human/Machine Interface provides communications with other functions in the trusted agent 120 and money module 6 through the Message Manager 134. The host processor's Communication function 128 supports wired or wireless communications between the transaction device and the outside world. In particular, the Communication function 128 provides the connection between the customer and the merchant transaction devices. Page 14, lines 8-13.

The host processor can execute various transaction applications as illustrated by reference numeral 130 in Figure 3. As stated in the corresponding text: "Transaction Applications 130 may perform a variety of tasks. For example, a transaction application may perform the shopping task by interfacing to a merchant server's catalogue services for browsing activities, choosing the products, and initiating payment and delivery....In short a transaction device 122 contains all the processes to choose, buy and possibly use electronic objects, credentials, and other tickets 8, or the processes to sell the same." Page 14, lines 15-23.

The Rosen application incorporates by reference the disclosure of U.S. Patent No. 5,453,601 (the '601 patent) which describes the preferred money module and the host processing device (i.e., the external system or device) to which it is interfaced. Page 1, lines 28-30. Page 37, lines 6-9. A copy of the '601 patent is annexed as Exhibit B. Examples of such host processing devices are shown in Figure 3 of the '601 patent as including point of sale (POS) terminals, electronic wallets, personal computers/workstations, mainframes and telephones. See also the related text at Col. 9, line 50 to col. 11, line 36.

Claim 1 of the Hiroya Patent uses the phrase "terminal means connected to said communication line for executing input, output, transmission and reception". The terminal device of the Hiroya Patent is illustrated in Figure 3 of the patent as having an input device 22, a display device 23, a communication device 24, a storage device 25, an IC card reader/writer 26, and a CPU 27. As stated in col. 8, lines 40-44: "the terminal device basically provides an interface between a ticket purchaser, the electronic ticket storage device, and the electronic ticket vending and refunding device connected via the communication line."

As may be seen by a comparison of the above disclosures, the "host processor/terminal means" recitations of the Rosen application and the Hiroya Patent are directed to the same concept.

5. Electronic Ticket Storage Device / Electronic Ticket Storage Means

Claim 1 of the Rosen application recites: "an electronic ticket storage device having an interface that electronically connects to said host processor, where said electronic ticket storage device stores electronic money, an electronic ticket, and a transaction history including transactions of electronic money and electronic tickets". The application discloses a customer's trusted agent that has the components shown in Figures 4A and 4B. Page 15, line 11 to page 16, line 12. Page 17, lines 1-11. The trusted agent has an external interface 138 that provides physical communication with the host processor. The trusted agent also has a ticket holder 148 for storing an electronic ticket and a transaction log 162 for recording a ticket transfer. The money module stores electronic money and also has a transaction log for recording an electronic money transfer. In particular, Figure 41 shows a Commit Protocol, where when step 1710 is executed, the customer money module's transaction log is updated. Page 14, lines 6-18. The subject application also discloses that the money module and trusted agent can be fabricated as a single device. Page 35, lines 10-16.

Claim 1 of the Hiroya Patent recites: "an electronic ticket storage means having means for electronically connecting said terminal means for storing electronic money, means for storing an electronic ticket, and means for storing a transaction history including transactions of electronic money and electronic tickets." The patent discloses an electronic ticket storage device in Figure 4. The device has a CPU 38 and a storage device 31 including a program storage area



and a working area which, of course, defines a processing device. The storage device also stores an electronic ticket, electronic money and a transaction history. The device also has an external I/O interface 37.

As may be seen by a comparison of the above disclosures, the "electronic ticket storage device/electronic ticket storage means" recitations of the Rosen application and the Hiroya Patent are directed to the same concept.

#### 6. Purchasing or Refunding Request

Claim 1 of the Rosen application recites: "where in response to an electronic ticket purchase request or an electronic ticket refund request, by at least said host processor or said electronic ticket storage device, at least said electronic ticket or said electronic money is sent from said electronic ticket vending device via said communication line." Figures 12A-12B of the application describe a Purchase of Electronic Merchandise protocol. Page 31, line 1 to page 44, line 13. The customer chooses the electronic merchandise (i.e., the electronic ticket) by way of a buyer transaction application in his host processor device. The identity of the chosen merchandise is sent to the merchant's trusted agent by way of the merchant server. See Figure 12A steps 398, 400, 402, and 406. Also see the corresponding text at page 31, lines 1-15. Subsequently, an electronic ticket is transferred by the Deliver Merchandise subroutine (step 424) shown in detail in Figures 15A-15B.

Figures 30A-30E illustrate a Dispute Over Electronic Merchandise protocol. Page 50, line 29-page 54, line 14. A customer informs a merchant of a dispute over electronic merchandise (i.e., the electronic ticket) by way of a transaction application in his host processor. See steps 1044, 1046 and 1050. In steps 1098 and 1100 of Figure 30D the customer chooses whether he wants electronic money back (i.e., a refund) or whether he wants new electronic merchandise. In the case of a refund, the Pay Dispute subroutine (step 1102) is called. Page 52, line 28 to page 53, line 1. A message requesting a refund is shown in steps 1166 and 1168 of Figure 32, the Pay Dispute subroutine. Step 1174 of Figure 32 shows that electronic money is transferred in response to a refund request. See also Figures 16A-16E for the Money Module Payment subroutine.

The Hiroya Patent recites: "wherein by a request of one of purchasing and refunding of an electronic ticket by at least one of said terminal means and said electronic ticket storage means, at least one of said electronic ticket and said electronic money is sent from said electronic ticket vending means via said communication line." Figure 5 of the Hiroya patent shows an electronic ticket purchasing procedure. Step 250 shows selecting a ticket and sending its identity to the electronic ticket vending and refunding device. Step 390 shows sending the electronic ticket to the electronic ticket storage device.

Figure 12 of the Hiroya Patent shows an electronic ticket refunding procedure. Step 930 as described in the corresponding text beginning at col. 19, line 19, describes the purchaser selecting a refund. Step 970 as described in the text beginning at col. 19, line 53, describes the purchaser identifying the ticket to the electronic ticket vending and refunding device. Step 1110 shows sending the electronic money to the electronic ticket storage device.

As may be seen by a comparison of the above disclosures, the "purchasing or refunding request" recitations of the Rosen application and the Hiroya Patent are directed to the same patentable concept.

Accordingly, as demonstrated by the above comparisons, applicant respectfully submits that claim 1 of the Rosen application and claim 1 of the Hiroya Patent define the same invention.

B. Identification of Claims Corresponding To Proposed Count

1. Claims of the Hiroya Patent

The proposed count recites claim 1 of the Rosen application and claim 1 of the Hiroya Patent as alternatives. Accordingly, since the proposed count includes, as one alternative, claim 1 of the Hiroya patent, claim 1 corresponds exactly to one of the alternatives recited by the proposed count.

Claims 2-18 of the Hiroya Patent also correspond to the proposed count. Applicant notes that the issued claims in the Hiroya Patent were not subject to a restriction requirement. Hence, the presumption is that all of the Hiroya patent claims are directed to one patentable invention. See 37 C.F.R. § 1.141(a).

Dependent claim 2 of the Hiroya Patent recites the electronic ticket vending means as comprising a ticket production means, a ticket transmission and reception means, a money transmission and reception means, money storage means, transaction history storage means, and encryption key storage means. The feature of an electronic ticket production means is either already in claim 1 ("electronic ticket vending means for generating an electronic ticket") or would clearly have been obvious therefrom. The recited transmission and reception means for the ticket and money as well as the recited storage means for both the electronic money and the transaction history are either already recited in claim 1 or obvious therefrom. The use of an encryption key storage means would have been obvious given the conventional use of cryptography in electronic commerce transactions.

Dependent claim 3 of the Hiroya Patent further defines the ticket production means as having a microcomputer programmed to produce a ticket from data indicating the ticket's publication source and price. An electronic commerce device will, of course, use a programmed microcomputer. The recited types of data would have been obvious to include in a ticket.

Dependent claim 4 of the Hiroya Patent further defines the electronic ticket vending means as having features conventionally used in public key cryptography (i.e., a secret key and a public key).

Dependent claim 5 of the Hiroya Patent further defines the electronic ticket storage means as having an I/O interface and a microprocessor. To the extent these features are not already present in claim 1, they are clearly obvious therefrom.

Dependent claims 6, 7 and 8 of the Hiroya Patent, to the extent understood, recite conventional digital signature techniques.

Dependent claim 9 recites a feature of protecting an "item" relating to an electronic ticket, until the ticket is deleted. This feature relates to Hiroya's disclosure of a "deletable flag" in the transaction history file, and merely describes a conventional memory management technique used, for example, in database systems.

Dependent claim 10 of the Hiroya Patent recites the feature of deleting the electronic ticket being refunded after receiving the electronic money refund payment. It would have been obvious to delete a refunded item after receiving payment.

Dependent claim 11 of the Hiroya Patent recites that the electronic ticket storage means includes an invalid flag used during a refund, and a means for deleting the electronic ticket after completion of the transfer. These features would have been obvious to include in an electronic refund transaction.

Independent claim 12 of the Hiroya Patent recites the steps for performing an electronic ticket vending method in a system like that of claim 1. The first two steps of claim 12 ("sending a purchased electronic ticket to said electronic ticket transmission and reception means from at least one of the terminals" and "sending a sending request for the purchasing cost to the purchase desire terminal, when said electronic ticket can be vended from said electronic ticket transmission and reception means"), to the extent understood, appear merely to recite the obvious preliminary steps of the purchaser selecting a particular ticket to be purchased and the vendor asking to be paid the price of the ticket. The remaining steps are merely those of sending the electronic money, sending the electronic ticket, and receiving and storing the electronic ticket. The method of claim 12 is not patentably distinct from the proposed count.

Dependent claim 13 of the Hiroya Patent further recites the steps to perform an electronic ticket refund method using a system like that of claim 1. The recited steps are essentially those of sending a refunding request, requesting sending of an electronic ticket to be refunded, receiving and confirming the validity of the electronic ticket that is sent, and then sending the electronic money being refunded to the electronic ticket storage means via the terminal. These are merely obvious steps given the refund functionality of the system defined by the proposed count.

Dependent claims 15, 16, 17 and 18 of the Hiroya Patent (taken out of sequence because of their ultimate dependence from claim 12), merely recite the steps of sending and receiving the electronic money and the electronic ticket by the electronic ticket transmission and reception means and the electronic ticket storage means. Furthermore, these claims, to the extent understood, appear to recite the steps of recording the electronic ticket and electronic money transfers in the transaction history, which is obvious given the proposed count.

Independent claim 14 of the Hiroya Patent recites the steps of performing an electronic ticket refunding method using a system like that of claim 1. The refunding steps of claim 14 are similar to those recited in claim 13. The steps are obvious given the refund functionality defined by the count.

## 2. Claims of the Rosen Application

The proposed count recites claim 1 of the Rosen application and claim 1 of the Hiroya Patent as alternatives. Accordingly, since the proposed count includes, as one of the alternatives, claim 1 of the Rosen application, claim 1 corresponds exactly to one of the alternatives recited by the proposed count.

Claims 2-11 of the Rosen application also correspond to the proposed count.

Dependent claim 2 of the Rosen application corresponds substantially to claims 2 and 3 of the Hiroya Patent. Application claim 2 relates to producing an electronic ticket from ticket publication source data and ticket price data. This feature would have been obvious in view of the proposed count which recites “generating an electronic ticket”. The remaining features would also have been obvious to include in an electronic ticket vending device for reasons similar to those given regarding claims 2 and 3 of the Hiroya Patent.

Dependent claim 3 of the Rosen application corresponds substantially to claim 4 of the Hiroya Patent. Claim 3 relates to the use of public key cryptography in the electronic ticket vending system. The use of different key pairs for different merchants would have been obvious given conventional asymmetric cryptographic techniques. Therefore, claim 3 should be designated to correspond to the proposed count.

Dependent claim 4 of the Rosen application corresponds substantially to claim 5 of the Hiroya Patent and should be designated to correspond to the proposed count for similar reasons.

Dependent claim 5 of the Rosen application relates to storing an electronic signature in the electronic ticket storage device. The use of digital signatures was conventional in the art. Accordingly, claim 5 should be designated to correspond to the proposed count.

Independent claim 6 of the Rosen application corresponds substantially to claim 12 of the Hiroya patent and should be designated to correspond to the count for similar reasons.

Dependent claims 7-10 of the Rosen application correspond substantially to claims 15-18 of the Hiroya patent and should be designated to correspond to the count for similar reasons.

Independent claim 11 of the Rosen application corresponds substantially to claim 1 of the Hiroya patent and should be designated to correspond to the count for similar reasons.

C. Support in the Present Application and Benefit Applications for Applicant's Claims 1-11

Applicant's claims are self supporting original claims of this application. Moreover, as described below, the claims are fully supported by the specification of this Rosen application as well as the benefit Rosen applications. This Rosen application is a Rule 53(b) divisional application of U.S. Serial No. 08/895,395 filed July 16, 1997 which is a Rule 60 divisional application of U.S. Serial No. 08/730,158 filed October 23, 1996, which is a continuation of U.S. Serial No. 08/575,699 filed December 9, 1995, which is a divisional application of U.S. Serial No. 08/234,461 filed April 28, 1994 now issued as U.S. Patent No. 5,557,518 (the '518 patent). For convenience, reference below is made to the '518 Rosen patent as well as the present Rosen application. A copy of the '518 patent is annexed as Exhibit C. The figure numbering is the same for the '518 patent and the Rosen application.

1. Claim 1

(a) "Electronic Ticket Vending System"

An "electronic ticket vending system" is shown in Fig. 1. As stated in the specification: "Referring to FIG. 1, there is shown the basic interaction between system components during an anonymous payment transaction. To achieve the secure exchange of payment for electronic merchandise when buyer and seller are transacting electronically, the present invention introduces trusted agents 2, 4 for both the customer and merchant. A trusted agent is a combination of hardware and software components. It is tamperproof and contains secure protocols which cooperate with a money module 6 to synchronize secure payment to delivery." Page 6, lines 13-19 (col. 4, lines 4-13 of the '518 patent). As further stated in the specification:

"Electronic merchandise is any goods that can be represented in electronic form, and in the preferred embodiment described herein consists of either a ticket or an encrypted electronic object (EO) and its associated decryption ticket." Page 7, lines 13-15 (col. 4, lines 41-44 of the '518 patent).

(b) "Electronic Ticket Vending Device"

Claim 1 of the Rosen application recites: "an electronic ticket vending device that generates an electronic ticket and executes at least one of vending and refunding by exchanging the generated electronic ticket with electronic money." The claimed "electronic ticket vending device" is supported by the merchant transaction device 198 shown in Figure 5 and also shown in Figure 3 as comprising host processor 124, trusted agent 120, and money module 6. Page 13, line 26 to page 15, line 7 (col. 7, line 65 to col. 8, line 53 of the '518 patent). Support for the recitation of the electronic ticket vending device is also found in the merchant server 194 shown in Figure 5 which provides a "merchandise catalogue" as discussed at page 17, lines 28-29 (col. 10, lines 23-25 of the '518 patent). The specification further discloses a merchandise server 196 which constitutes an electronic warehouse. Page 17, line 30 (col. 10, lines 26-27 of the '518 patent).

The claim recites that the electronic ticket vending device "generates an electronic ticket". Support for this phrase is found in Figure 4A which shows Ticket Holder 48. As discussed at page 17, lines 5-6 (col. 9, lines 60-61 in the '518 patent) a ticket is generated by the trusted agent's Ticket Holder 148. For example, see step 468 "Create Ticket" in Figure 15A and the corresponding text at page 32, line 30 (col. 18, lines 43-47 in the '518 patent). Examples of electronic tickets (such as an event ticket) are shown in Figure 2 and described in the corresponding text beginning at page 7, line 13 (col. 4, line 40 of the '518 patent).

The claim also recites that the electronic ticket vending device "executes at least one of vending and refunding by exchanging the generated electronic ticket with electronic money." Support for the vending function is shown generally in Figure 1. More particularly, Figures 12A-12B illustrate a Purchase of Electronic Merchandise protocol. Page 31, line 1 to page 44, line 13 (col. 17, line 41 to col. 24, line 63 of the '518 patent). Step 424 "Deliver merchandise" and step 430 "Money Module Payment" relate to the transfer of an electronic ticket and

electronic money, respectively. The subroutines corresponding to these steps are detailed in Figures 15A-15B and Figures 16A-16E, respectively.

Support for the refunding function is shown in Figures 30A-30E which sets forth a Dispute Over Electronic Merchandise protocol. Page 50, line 29 to page 54, line 14 (col. 28, line 39 to col. 30, line 42). In step 1098 the customer chooses if he wants electronic money back (i.e., a refund) or new merchandise. Figure 32, the Pay Dispute protocol, illustrates part of the refund mechanism. Steps 1166-1174.

(c) "Communication Line"

A "communication line connected to said vending device" is supported, for example, by Figure 5 which shows exemplary communication networks connecting the merchant and customer. See, for example, merchant network 192 and gateway network 190. Page 15, lines 15-26.

(d) "Host Processor"

Claim 1 recites: "at least one host processor connected to said communication line that executes input, output, transmission and reception for executing at least one of vending and refunding of an electronic ticket." Support for this "host processor" recitation was described previously in Section B.4. See also the '518 patent at col. 8, lines 1-53.

(e) "Electronic Ticket Storage Device"

Claim 1 recites: "an electronic ticket storage device having an interface that electronically connects to said host processor, where said electronic ticket storage device stores electronic money, an electronic ticket, and a transaction history including transactions of electronic money and electronic tickets, and where said transaction history is updated, by a program stored in said electronic ticket storage device, after a transfer of either electronic money or an electronic ticket." Support for an "electronic ticket storage device" is found in Figure 3 which shows trusted agent 120 and money module 6 forming part of the customer transaction device. As disclosed in the application, "instead of the trusted agent 120 and money module 6 being embodied as discrete tamper-proof components, they may be fabricated as one tamper-proof module." Page 35, lines 10-16 (col. 4, lines 14-16 of the '518 patent).



As recited in the claim, the electronic ticket storage device has "an interface that electronically connects to said host processor." Support for this phrase is found in Figure 4A which shows an "External Interface 138". As stated in the text, "An External Interface function 138 provides physical communication with the host processor 124...". Page 15, lines 20-21 (col. 9, lines 1-2 of the '518 patent).

As also recited, the electronic ticket storage device "stores electronic money." This phrase is supported by the disclosed money modules. Electronic money is stored in the money module 6 of Figure 3. As stated in the text: "The money modules contemplated herein are tamper-proof devices, capable of storing and transferring electronic money." Page 6, lines 1-2 (col. 4, lines 14-16 of the '518 patent). The preferred money modules of the present invention are disclosed in U.S. Patent No. 5,453,601 which is incorporated by reference. Page 1, lines 28-30; page 6, lines 25-27; page 37, lines 6-7; page 54, lines 18-30. (Col. 1, lines 33-36; col. 4, lines 21-24; col. 21, lines 8-10; col. 30, lines 45-63 of the '518 patent).

The claim also recites that the electronic ticket storage device "stores an electronic ticket." This phrase is supported by the disclosed trusted agents. Electronic tickets are stored in trusted agent 120 of Figure 3. Tickets are stored by "Ticket Holder 148" of Figure 4A. Page 17, lines 5-6 (col. 9, lines 60-61 of the '518 patent).

The claim recites that the electronic ticket storage device "stores a transaction history" (i.e., a transaction log) for both electronic money and electronic ticket transactions. This phrase is supported by Figure 4B which shows that a trusted agent has a Tran Log 162. As stated in the text: "A Tran Log function maintains a log of trusted agent transactions. Both CTAs 2 [customer trusted agents] and MTAs 4 [merchant trusted agents] maintain a transaction log which stores the following information: transaction type (e.g., ticket type); a pre-transaction ticket image; a post-transaction ticket image...". Page 16, lines 5-11 (col. 9, lines 22-30 of the '518 patent). Examples of ticket image information are shown in Figure 2.

Money modules also maintain a transaction log. Figure 41 illustrates a Commit Protocol for money modules. Step 1710, "Update Tran Log", updates the customer money module's transaction log with respect to the electronic money transfer. Page 40, lines 9-18 describes the content of an exemplary transaction log when recording a completed transfer of electronic

money. U.S. Patent 5,453,601, incorporated by reference in both the present application and the '518 patent, similarly shows exemplary transaction log content at col. 12, lines 14-33.

Claim 1 also recites: "where in response to an electronic ticket purchase request or an electronic ticket refund request, by at least said host processor or said electronic ticket storage device, at least said electronic ticket or said electronic money is sent from said electronic ticket vending device via said communication line." Support for this phrase has been described previously in Section B.6. With regard to purchasing, Figures 12A-12B illustrate a Purchase of Electronic Merchandise protocol. With regard to refunding, Figures 30A-30E illustrate a Dispute Over Electronic Merchandise protocol resulting in a customer refund.

## 2. Claim 2

Claim 2 is directed to producing the electronic ticket from at least "data indicating a ticket publication source and data indicating the price of a ticket." Support for this phrase is found in Figure 2 which shows the data content of exemplary electronic tickets. Identifier 10 includes a merchant identifier 22. Page 9, lines 19-22 (col. 5, lines 44-48 of the '518 patent). Also, an event ticket includes purchase price data 96. Page 11, lines 4-6 (col. 6, lines 33-26 of the '518 patent). As further support, the execution of a protocol for ticket creation is shown in Figure 12A, steps 412-424 and Figure 15A, steps 464-468. Page 32, lines 21-30 (col. 18, lines 35-47 of the '518 patent).

The claim also recites "an interface for transmission reception of electronic money, an interface for transmission reception of an electronic ticket." For supporting disclosure, see, for example, "Communications 128" in Figure 3 and "External Interface 138" in Figure 4A. As further support see also, for example, "External Interface 30" in Figure 4 of U.S. Patent No. 5,453,601, which is incorporated by reference.

The claim also recites that the electronic ticket vending device "stores an encryption key." For supporting disclosure, see, for example, symmetric key and public key 152 in Figure 4A. Page 17, lines 3-8 (col. 9, lines 56-63 of the '518 patent).

Claim 2 also recites the storage of electronic money and a transaction history. Disclosure supporting this recitation has been previously discussed in Section B.5.

3. Claim 3

Claim 3 recites storing a “secret key of an asymmetric encryption algorithm which varies with each merchant and a public key forming a counterpart to said secret key.” Support for the generation of public and secret keys has been previously given for applicant’s claim 2. Further supporting claim 3 is the disclosure relating to the electronic certificate stored in the merchant’s trusted agent. A public key is incorporated into each certificate as set forth, for example, at page 20, line 12 to page 21, line 12 (col. 11, line 44 to col. 12, line 12 of the ‘518 patent).

4. Claim 4

Claim 4 relates to “controlling transmission and reception of an electronic ticket and electronic money, and storage of said transaction history.” Support for these features has been previously given in Section B.5.

5. Claim 5

Claim 5 recites that the electronic ticket storage device “stores an electronic signature which is produced by digitally signing ticket data.” Support for digitally signing tickets is described at page 12, line 27 to page 13, line 4 (col. 7, lines 30-41 of the ‘518 patent).

6. Claim 6

Claim 6 describes a method for vending an electronic ticket. Support for the steps of claim 6 have been previously set forth in the discussion of the system claims. For example, support for “sending a request to purchase an electronic ticket” is shown in steps 398-406 of Figure 12A (Purchase of Electronic Merchandise protocol). Support for sending a “request for ticket payment” is described, for example, on page 39, lines 15-21 (col. 22, lines 28-36 of the ‘518 patent). Support for “sending electronic money” and “sending said electronic ticket” is described, for example, on page 42, lines 16-22 (col. 23, lines 52-61 of the ‘518 patent).

7. Claim 7

Claims 7 recites steps occurring at the electronic ticket vending device during an electronic ticket purchase. The steps are (1) receiving the electronic money, (2) recording the receiving of the electronic money, (3) sending the electronic ticket and (4) recording the sending of the electronic ticket. Support for each of these steps has been previously set forth in the discussion of the system claims.

8. Claim 8

Claim 8 recites steps occurring at the electronic ticket vending device during an electronic ticket refund. The steps are (1) receiving the electronic ticket, (2) recording the receiving of the electronic ticket, (3) sending the electronic money and (4) recording the sending of the electronic money. Support for each of these steps has been previously set forth in the discussion of the system claims.

9. Claim 9

Claim 9 recites steps occurring at the electronic ticket storage device during an electronic ticket purchase. The steps are (1) sending the electronic money, (2) recording the sending of electronic money, (3) receiving the electronic ticket, and (4) recording the receiving of the electronic ticket. Support for each of these steps has been previously set forth in the discussion of the system claims.

10. Claim 10

Claim 10 recites steps occurring at the electronic ticket storage device during an electronic ticket refund. The steps are (1) sending the electronic ticket, (2) recording the sending of the electronic ticket, (3) receiving the electronic money, and (4) recording the receiving of the electronic money. Support for each of these steps has been previously set forth in the discussion of the system claims.

11. Claim 11

Claim 11 recites an electronic ticket vending system. The supporting disclosure for this claim is the same as that previously given for applicant's claim 1.

D. The Requirements of 35 U.S.C. §135(b) Have Been Met

Applicant Rosen has filed claims 1-11 on May 19, 1999, within one year of the issue date of the Hiroya Patent (i.e., May 19, 1998) in compliance with 35 U.S.C. §135(b). See MPEP § 2307 citing Switzer v. Sockman, 333 F.2d 935, 142 USPQ 226 (CCPA 1964).

E. Applicant Rosen Should Be Declared the Senior Party in the Proposed Interference

Applicant's present application is a divisional application under 37 C.F.R. §1.53(b) of currently pending U.S. Serial No. 08/895,395 filed July 16, 1997, which is a 37 C.F.R. §1.60 divisional application of U.S. Serial No. 08/730,158 filed October 23, 1996 (now U.S. Patent No. 5,703, 949), which is a continuation of U.S. Serial No. 08/575,699 filed December 19, 1995, which is a divisional application of U.S. Serial No. 08/234,461 filed April 28, 1994 (now U.S. Patent No. 5,557,518). As shown above, the claims in this Rosen application are also supported by the disclosures of the above-identified benefit Rosen applications. Therefore, the effective filing date to which the Rosen application is entitled is April 28, 1994. The Hiroya Patent was issued from U.S. Serial No. 558,741 filed November 16, 1995 and claims priority to Japanese Application No. 6-284623 filed November 18, 1994, almost seven months after Rosen's effective filing date. Based upon the foregoing filing dates, the applicant Rosen should be named as the Senior Party in the proposed interference.

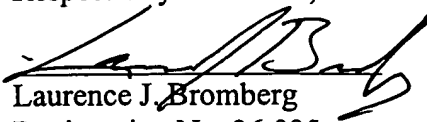
In view of the above, applicant Rosen respectfully requests that (1) an interference be declared between the subject Rosen application and the Hiroya Patent with the Count being the Count proposed herein, and that (2) applicant Rosen be named Senior Party in the interference.

If any fee is required in connection with the filing of this Request, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 13-4500. Order No. 0225-4185.

Dated: May 19, 1999

Respectfully submitted,

By:

  
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